CREST Status Report - April 13, 1998

Activity: Consolidated Reporting of EarthquakeS and Tsunamis (CREST)

1) ATWC integration: We installed an N/T-based A/D converter running Earthworm software. An Earthworm " Core Tsunami System" (CTS) computerwas also installed. These two machines provide the basis for ATWC to access all seismic data via an Earthworm front end. Work is underway to interface the CTS to the ATWC computers. ATWC is now receiving via the Internet continuous waveforms from 6 stations of the IDA/GSN network, triggered waveforms from 22 global stations from USGS-Golden, and continuous waveforms from 2 PNSN and 4 NCSN stations. In addition, ATWC receives from the NCSN and UW hypocenter information and have the ability to receive pick information.

2) HVO: As at ATWC, we installed an N/T-based A/D converter running Earthworm software and a CTS computer. HVO upgraded their CUSP processing system to run on a DEC-Alpha computer with latest revision of software from Caltech-USGS/Pasadena. HVO is sending via Earthworm protocol hypocenter information to PTWC.

3) PGC: Earthworm software was provided to the Geological Survey of Canada Pacific Geosciences Center in Vancouver, B.C. The PGC is bringing up the software and intends to send data via the Internet to the PNSN as a pilot project. If successful, their participation in the project will be expanded pending adequate financial support.

4) Field equipment: Low-power data loggers are in procurement. Sensors are expected to be delivered in May. Installations of field units are scheduled for this summer. An additional datalogger and new model of an accelerometer were tested at Albuquerque to ensure that the instruments meet CREST specifications. Noise studies were conducted at PNSN and NCSN sites scheduled for installation this summer.

5) University of Oregon: Financial support was arranged for operation of two UofO broadband seismic stations. Sites will be augmented with accelerometers and an CTS computer will be installed in Eugene for Internet transmission of data to the PNSN in Seattle.

6) Communications: Dedicated 56 Kb lines were ordered between Menlo Park-Golden, Seattle-Golden, Palmer-Golden, and Fairbanks-Palmer. Routers were procured. Lines are expected to be installed end of April. Lines to PTWC and HVO will be ordered when CREST software is installed at PTWC.

7) Algorithms: A data compression algorithm for export of ATWC data to AEIC was begun. The IDA2EW algorithm was completed. Waveserver functionality was improved. Import/Export routines were debugged.

8) The PNSN initiated transmission of reviewed earthquake messages to EMERS via NWWS. One event has occurred to date.